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SUMMARY

Agenda Item: D.14

France

SURVEYING FOUNDATIONS WITH THE AID OF PENETROMETERS

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No. 1815

D.14

SURVEYING FOUNDATIONS WITH THE AID OF PENETROMETERS

By

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SUMMARY

A technique for exploring soil structure in common use in Europe to-day is based on the use of penetrometers.

These devices can easily be used in developing countries. Incidentally, they have been in use in tropical Africa for some time.

In this paper the authors describe the equipment and its use. The conclusion may be drawn that dynamic penetrometers can provide information which is of great help in making preliminary plans and plans for foundations.

Thus we can give a simple rule of thumb for determining from a dynamic penetration test the permissible working rate, i.e. to take the twentieth part of the peak resistance as determined from the Dutch formula.

This reduction factor may seem excessive.

It was determined from the usual formulas of soil mechanics and the results of recent experiments.

Of course, if the soil is a better known one this factor may be less, e.g. for a shallow foundation on a compact gravelly soil.

However, we think that this factor will in any case be greater than 15.

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